

WHAT IS CLAIMED IS:

- 5 1. A semiconductor apparatus, comprising:
a substrate having a transistor;
a first electrode formed on said substrate and
connected to said transistor;
a second electrode formed on said substrate and
electrically separated from said first electrodes; and
an insulating film formed on said substrate so as to
10 cover said first electrode,
wherein, when a plane of said insulating film which
is not on a side of said substrate is taken as a first
plane, a surface facing said first plane of said first
electrode is taken as a first surface, and a surface
15 facing said first plane of said second electrode is taken
as a second surface, a distance between a surface of said
substrate and said second surface is larger than a
distance between the surface of said substrate and said
first surface.
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2. The semiconductor apparatus according to claim 1,
wherein said second surface is substantially equivalent
to a surface of said insulating film.
- 25 3. The semiconductor apparatus according to claim 1,
wherein the distance between the surface of said
substrate and said second surface is larger than a
distance between the surface of said substrate and the
surface of said insulating film.
- 30 4. The semiconductor apparatus according to claim 1,

wherein said second electrodes is fixed in a constant potential.

5. The semiconductor apparatus according to claim 1,
5 wherein a plurality of said first electrodes are arranged in a matrix form, and said second electrode is disposed between said plurality of first electrodes.

6. The semiconductor apparatus according to claim 5,
10 wherein a plurality of said second electrodes are arranged in a matrix form.

7. The semiconductor apparatus according to claim 1,
15 wherein said first electrode is connected to a first terminal of said transistor, and a second terminal of said transistor is connected to a bit line and a capacitance element to which a potential is applied.

8. The semiconductor apparatus according to claim 2,
20 wherein said second electrode is fixed in a constant potential.

9. The semiconductor apparatus according to claim 3,
25 wherein said second electrode is fixed in a constant potential.

10. The semiconductor apparatus according to claim 1,
30 wherein said second electrode is electrically connected to a pad electrode which is connected to a lead for taking a signal out.

11. A semiconductor apparatus for recognizing a fingerprint, comprising:

a semiconductor substrate having a transistor;
a first electrode formed on said semiconductor
5 substrate and connected to said transistor;

a second electrode formed on said semiconductor substrate and electrically separated from said first electrode; and

an insulating film formed on said semiconductor
10 substrate so as to cover said first electrode,

wherein, when a plane of said insulating film on which said fingerprint is placed is taken as a first plane, a surface facing said first plane of said first electrode is taken as a first surface, and a surface
15 facing said first plane of said second electrode is taken as a second surface, a distance between a surface of said semiconductor substrate and said second surface is larger than a distance between the surface of said semiconductor substrate and said first surface.

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12. The semiconductor apparatus according to claim 11, wherein said second surface is substantially equivalent to a surface of said insulating film.

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13. The semiconductor apparatus according to claim 11, wherein the distance between the surface of said semiconductor substrate and said second surface is larger than a distance between the surface of said semiconductor substrate and the surface of said insulating film.

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14. The semiconductor apparatus according to claim 11,

wherein said second electrode is fixed in a constant potential.

5 15. The semiconductor apparatus according to claim 11, wherein a plurality of said first electrodes are arranged in a matrix form, and said second electrode is disposed between said plurality of first electrodes.

10 16. The semiconductor apparatus according to claim 15, wherein a plurality of said second electrodes are arranged in a matrix form.

15 17. The semiconductor apparatus according to claim 11, wherein said first electrode is connected to a first terminal of said transistor, and a second terminal of said transistor is connected to a bit line and a capacitance element to which a potential is applied.

20 18. The semiconductor apparatus according to claim 12, wherein said second electrodes is fixed in a constant potential.

25 19. The semiconductor apparatus according to claim 13, wherein said second electrodes is fixed in a constant potential.

30 20. The semiconductor apparatus according to claim 11, wherein said second electrodes is electrically connected to a pad electrode which is connected to a lead for taking a signal out.